

Claims

What is claimed is:

1. A module for facilitating operation of packet-switched telephones, the module comprising:
  - a) a network interface for communicating over a network; and
  - b) a control system operatively associated with said network interface and providing a server function adapted to control operation of a plurality of packet-switched telephones operating as clients of the server function and facilitate communications between the plurality of packet-switched telephones and other telephony devices using a first protocol for communications with the plurality of packet-switched telephones and a second protocol for communications with the other telephony devices.
2. The module of claim 1 further comprising a telephone interface associated with the control system and adapted to connect to one of the plurality of packet-switched telephones, the control system further adapted to interact with one of the plurality of packet-switched telephones via the telephone interface.
3. The module of claim 2 wherein the control system is further adapted to cooperate with the one of the plurality of packet-switched telephones to initially configure the one of the plurality of packet-switched telephones to work in conjunction with the module via the telephone interface.

4. The module of claim 3 wherein the control system is further adapted to facilitate telephony communications between the one of the plurality of packet-switched telephones and one of the other telephony devices via the network interface.
5. The module of claim 1 wherein the control system is adapted to provide and control operation features for the plurality of packet-switched telephones.
6. The module of claim 5 wherein the operation features define provisioned telephony functions for the plurality of packet switched-telephones.
7. The module of claim 5 wherein the operation features define configuration settings for the plurality of packet switched-telephones.
8. The module of claim 5 wherein the operation features control at least one of the group consisting of keys, displays, responses, and functions of the plurality of packet-switched telephones using the first protocol.
9. The module of claim 5 wherein the control system further provides a web server function adapted to provide network access to set the operation features of the plurality of packet-switched telephones using a web browser.
10. The module of claim 9 wherein the web server function provides at least one web page providing an

interface for a user to set select ones of the operation features.

11. The module of claim 1 wherein the server function  
5 provides a terminal proxy server for the plurality of packet-switched telephones.
12. The module of claim 1 wherein the control system is  
10 further adapted to translate between the first and second protocols to facilitate communications between the plurality of packet-switched telephones and the other telephony devices.
13. The module of claim 1 wherein the second protocol is  
15 a Session Initiation Protocol.
14. A packet-switched telephone facilitating operation of other packet-switched telephones comprising:  
20 a) a microphone and speaker configuration providing an audible interface;  
b) a packet-switched network interface for communicating over a network; and  
c) a control system operatively associated with  
25 said network interface and the microphone and speaker configuration, the control system providing a server function adapted to control operation of a plurality of packet-switched  
30 telephones operating as clients of the server function and facilitate communications between the plurality of packet-switched telephones and other telephony devices using a first protocol for communications with the plurality of packet-switched telephones and a second protocol for communications with the other telephony devices.

15. The packet-switched telephone of claim 14 wherein  
the control system is further adapted to facilitate  
telephony communications between one of the  
5 plurality of packet-switched telephone and one of  
the other telephony devices via the packet-switched  
network interface.
16. The packet-switched telephone of claim 14 wherein  
10 the control system is adapted to provide and control  
operation features for the plurality of packet-  
switched telephones.
17. The packet-switched telephone of claim 14 wherein  
15 the control system is adapted to provide and control  
operation features for the plurality of packet-  
switched telephones.
18. The packet-switched telephone of claim 17 wherein  
20 the operation features define provisioned telephony  
functions for the plurality of packet switched-  
telephones.
19. The packet-switched telephone of claim 17 wherein  
25 the operation features define configuration settings  
for the plurality of packet switched-telephones.
20. The packet-switched telephone of claim 17 wherein  
the operation features control at least one of the  
30 group consisting of keys, displays, responses, and  
functions of the plurality of packet-switched  
telephones using the first protocol.

21. The packet-switched telephone of claim 17 wherein the control system further provides a web server function adapted to provide network access to set the operation features of the plurality of packet-switched telephones using a web browser.
22. The packet-switched telephone of claim 21 wherein the web server function provides at least one web page providing an interface for a user to set select ones of the operation features.
23. The packet-switched telephone of claim 14 wherein the server function provides a terminal proxy server for the plurality of packet-switched telephones.
24. The packet-switched telephone of claim 14 wherein the control system is further adapted to translate between the first and second protocols to facilitate communications between the plurality of packet-switched telephones and the other telephony devices.
25. The packet-switched telephone of claim 14 wherein the second protocol is a Session Initiation Protocol.
26. A method of controlling packet-switched telephones comprising:
- a) providing a server function in association with a first packet-switched telephone;
  - b) configuring the first packet-switched telephone and a second packet-switched telephone as clients of the server function;

- c) controlling operation of the first and second packet-switched telephones using the server function; and
- d) facilitating communications between a plurality of packet-switched telephones and other telephony devices with the server function using a first protocol for communications with the plurality of packet-switched telephones and a second protocol for communications with the other telephony devices.

27. The method of claim 26 further comprising providing the server function in a module and associating the module with the first packet-switched telephone.

28. The method of claim 26 wherein the server function is integrated into the first packet-switched telephone.

29. The method of claim 26 further comprising:

- a) providing a web server to provide a web page configured to receive settings for operation features defining operation of one of the first or second packet-switched telephones;
- b) receiving input to set operation features for the one of the first or second packet switched-telephone via the web server; and
- c) setting the operation features of the first or second packet-switched telephone based on the input.

30. A packet switched telephony system comprising:

- a) a plurality of packet-switched telephones communicating over a packet-switched network and

configured to operate as clients of a server function; and

- b) a module associated with one of the plurality of packet-switched telephones comprising:
    - 5 i) a network interface for communicating over a network; and
    - ii) a control system operatively associated with said network interface and providing the server function adapted to control operation
- 10 of the plurality of packet-switched telephones and facilitate communications between the plurality of packet-switched telephones and other telephony devices using a first protocol for communications with the
- 15 plurality of packet-switched telephones and a second protocol for communications with the other telephony devices;

31. A packet-switched telephony system comprising:

- 20 a) a plurality of first packet-switched telephones communicating over a packet-switched network and configured to operate as clients of a server function; and
  - b) a second packet-switched telephone comprising:
    - 25 i) a microphone and speaker configuration providing an audible interface;
    - ii) a packet-switched network interface for communicating over a network; and
    - iii) a control system operatively associated
- 30 with said network interface and the microphone and speaker configuration, the control system providing the server function adapted to control operation of the plurality of first packet-switched

telephones operating as clients of the server function and facilitate communications between the plurality of first packet-switched telephones and other telephony devices using a first protocol for communications with the plurality of first packet-switched telephones and a second protocol for communications with the other telephony devices.

32. A computer readable medium including software for facilitating operation of a group of packet-switched telephones, the software comprising instructions for a computer to provide:
- a) a server function adapted to:
    - i) control operation of a plurality of packet-switched telephones operating as clients of the server function; and
    - ii) facilitate communications between the plurality of packet-switched telephones and other telephony devices using a first protocol for communications with the plurality of packet-switched telephones and a second protocol for communications with the other telephony devices,wherein the server function is adapted to provide and control operation features for the plurality of packet-switched telephones; and
  - b) a web server function adapted to provide network access to set the operation features of the plurality of packet-switched telephones using a web browser.



33. The computer readable medium of claim 32 wherein the software is adapted to instruct a control system of a module connected to one of the plurality of packet-switched telephones.

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34. The computer readable medium of claim 32 wherein the software is adapted to instruct a control system of one of the plurality of packet-switched telephones.

10 35. The computer readable medium of claim 32 further comprising instructions adapted to cooperate with one of the plurality of packet-switched telephones to initially configure the one of the plurality of packet-switched telephones to work in conjunction  
15 with the module via a telephone interface.

36. The computer readable medium of claim 32 wherein the operation features define provisioned telephony functions for the plurality of packet-switched  
20 telephones.

37. The computer readable medium of claim 32 wherein the operation features define configuration settings for the plurality of packet-switched telephones.

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38. The computer readable medium of claim 32 wherein the operation features control at least one of the group consisting of keys, displays, responses, and functions of the plurality of packet-switched  
30 telephones using the first protocol.

39. The computer readable medium of claim 32 comprising further instructions to enable the web server function to provide at least one web page providing

an interface for a user to set select ones of the operation features.

40. The computer readable medium of claim 32 comprising  
5 further instructions to enable the server function to provide a terminal proxy server for the plurality of packet-switched telephones.

41. The computer readable medium of claim 32 comprising  
10 further instructions to translate between the first and second protocols to facilitate communications between the plurality of packet-switched telephones and the other telephony devices.

42. The module of claim 32 wherein the second protocol  
15 is a Session Initiation Protocol.

43. A system for controlling packet-switched telephones  
20 comprising:

- a) means for providing a server function in  
association with a first packet-switched  
telephone;
- b) means for configuring the first packet-switched  
telephone and a second packet-switched telephone  
25 as clients of the server function;
- c) means for controlling operation of the first and  
second packet-switched telephones using the  
server function; and
- d) means for facilitating communications between a  
30 plurality of packet-switched telephones and  
other telephony devices with the server function  
using a first protocol for communications with  
the plurality of packet-switched telephones and

a second protocol for communications with the other telephony devices.

44. The system of claim 43 further comprising means for  
5 providing the server function in a module and  
associating the module with the first packet-  
switched telephone.

45. The system of claim 43 wherein the server function  
10 is integrated into the first packet-switched  
telephone.

46. The system of claim 43 further comprising:  
15 a) means for providing a web server to provide a  
web page configured to receive settings for  
operation features defining operation of one of  
the first or second packet-switched telephones;  
b) means for receiving input to set operation  
20 features for the one of the first or second  
packet switched-telephone via the web server;  
and  
c) means for setting the operation features of the  
first or second packet-switched telephone based  
25 on the input.